

Docket Number 06-SPPE-1
First Round Data Requests
Niland Gas Turbine Plant
April 2006

DATA REQUEST #2
AIR QUALITY

BACKGROUND

Diesel Fuel for Fire Pump Engine: Appendix B, Attachment C lists the expected emissions of the fire pump engine using standard diesel fuel. Staff believes that the use of ultra-low sulfur diesel, which contains no more than 15 ppm sulfur, can further reduce the facility's oxides of sulfur (SO_x) and particulate matter (PM) emissions liability.

DATA REQUEST

2. Given the scenario of using ultra-low sulfur diesel, please provide revised project emissions, and the air dispersion modeling based on the use of ultra-low sulfur diesel fuel.

DATA RESPONSE

Given (1) Applicant's commitment in Data Response #1 to utilize ultra-low sulfur diesel fuel if and when it becomes available from Imperial County suppliers and distributors, and (2) the minimal quantity of annual diesel fuel burned for testing of the fire pump engine, Applicant respectfully requests to eliminate the revised air dispersion model analysis.

The emissions of SO₂ for each 30-minute test of the fire pump diesel engine at the assumed sulfur content of 0.05 percent by weight (500 ppmw) amount to 0.03 pound. During this same 30 minutes, the two turbines at full load would emit 0.8 pounds of SO₂. On an annual basis, the firewater pump engine would emit 0.8 pounds of SO₂, while the two turbines would emit 2.6 tons of SO₂ if they were to run all the hours requested in the application. Applicant previously modeled the SO₂ emissions from all Project sources for the following averaging times and obtained the following results:

Measurement Period	Total Project SO ₂ ($\mu\text{g}/\text{m}^3$)	Background SO ₂ ($\mu\text{g}/\text{m}^3$)	Total Project and Background ($\mu\text{g}/\text{m}^3$)	Standard ($\mu\text{g}/\text{m}^3$)
Worst Case One Hour	4.15	68.10	72.25	655
Worst Case Three Hour	1.39	57.20	58.59	1,300
Worst Case 24 Hour	0.36	28.80	29.16	105
Annual	.01	8.00	8.01	80

(Note: $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter)

Given the fact that the firewater pump engine represents such a tiny fraction of the total Project emissions of sulfur oxides and the above results which show compliance with all standards by a wide margin with the 0.05% sulfur fuel, Applicant believes there is no significant value in conducting another round of air dispersion modeling.